CW#11: Quadratic Tables

Geometry

September 23rd, 2015

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Macintosh HD:Users:katleiahramos:Desktop:Screen Shot 2015-09-20 at 8.53.28 PM.png | Macintosh HD:Users:katleiahramos:Desktop:Screen Shot 2015-09-20 at 8.54.37 PM.png | Macintosh HD:Users:katleiahramos:Desktop:Screen Shot 2015-09-20 at 8.55.01 PM.png |

**Explore**

1. What is similar of the tables above?
2. What is different about the tables above?
3. Graph one of the tables above in your geometry notebook. What important points can you see in this graph? List as many as you can find and label them on your graph.
4. Find all the points you label on your graph in your table. Label them the same way you labeled your graph.
5. Repeat questions 3 and 4 for another table above that you think will be interesting to compare.

**Generalize**

1. Describe a way to find the highest or lowest point of a quadratic function in a table. How can we tell if it has a highest or lowest point by looking only at a table (instead of graphing the points)?
2. How can you identify the location of the axis of symmetry or “fold” for *any* table of quadratic function? Justify your answer using the tables you graphed.
3. For all the other important points you identified on your graph, describe a way to find them for *any* table of a quadratic function.

CW#11: Quadratic Tables

Geometry

September 23rd, 2015

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Practice:**

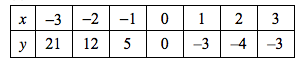
|  |
| --- |
| Expectations:   * Working silently and independently at your desk. * Being efficient: using all the time given to complete the practice to the best of your ability. |

1. Use the following table to answer the questions below.

|  |  |
| --- | --- |
| x | y |
| -3 | 18 |
| -2 | 10 |
| -1 | 4 |
| 0 | 0 |
| 1 | -2 |
| 2 | -2 |
| 3 | 0 |
| 4 | 4 |
| 5 | 10 |

1. Will this function have a high or low point? How do you know?
2. What important points do you see in this table?
3. Create a graph from this function. *Hint: Which 4-5 points will help you graph? Is it necessary to plot each point to construct the graph?*
4. What important points do you see in the graph?
5. Where will the graph “fold?”
6. Describe the shape of the graph, including its direction.

4. Use the following table to respond to the following questions.



1. Will this function have a high or low point? How do you know?
2. What important points do you see in this table?
3. Create a graph from this function.
4. What important points do you see in the graph?

y = -x2 + 6x – 3

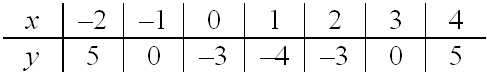
3.

1. Will this function have a highest point or lowest point? Why do you think that?
2. Create a table for this function. Be sure to use both positive and negative x-values. Before you try to create a table of values, what is a reasonable range of x-values to use?
3. What important points can you see in this table? List as many as you can find.
4. Create a graph for this function. *Use graph paper.*
5. What important points can you see in this graph? List as many as you can find.

**Exit Ticket**

**NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP \_\_\_\_\_\_\_**

1. Based on what we did today in class, identify 4-5 key features that we should pay attention to when we consider the table of a quadratic function.
2. Use the example below to identify the 4-5 features or points you mentioned above.



**Exit Ticket**

**NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP \_\_\_\_\_\_\_**

1. Based on what we did today in class, identify 4-5 key features that we should pay attention to when we consider the graph of quadratic functions:
2. Use the example below to identify the 4-5 features or points you mentioned above.

